## EXHIBIT 2

## UNITED STATES DISTRICT COURT EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

NETJUMPER SOFTWARE, L.L.C., a Michigan limited liability corporation. Case No. 04-70366-CV Hon. Julian Abele Cook Magistrate Judge R. Steven Whalen

Plaintiff.

vs.

Case 2:04-cv-70366-JAC-RSW

Document 93-4

Filed 07/31/2006

Page 2 of

GOOGLE INC.,

a Delaware corporation, Defendant.

SOMMERS SCHWARTZ, P.C. Andrew Kochanowski (P55117) Nabeel N. Hamameh (P60981) **Attorneys For Plaintiff** 2000 Town Center, 9th Floor Southfield, MI 48075 (248) 355-0300

BANIAK, PINE & GANNON Michael Baniak Co-Counsel For Plaintiff 150 N. Wacker Drive, Suite 1200 Chicago, IL 60606 (312) 673-0360

DICKINSON WRIGHT, PLLC Kathleen A. Lang (P34695) L. Pahl Zinn (P57516) Attorneys For Defendant 500 Woodward Ave., Ste. 4000 Detroit, MI 48226 (313) 223-3500

FISH & RICHARDSON P.C. Howard G. Pollack Attorneys For Defendant 500 Arguello Street, Ste. 500 Redwood City, CA 94063 (650) 839-5070

FISH & RICHARDSON P.C. Frank E. Scherkenbach 225 Franklin Street, Ste. 3100 Boston, MA 02110-2804 (617) 542-5070

## **DECLARATION OF BERNARD A. GALLER**

1. I am Bernard A. Galler, Professor Emeritus at the University of Michigan, in the Department of Electrical Engineering and Computer Science. As my resume in Appendix A indicates, I was employed at the University of Michigan since 1955, first in the Department of Mathematics, then in different departments covering the field of Computer Science. I hold a PhD in Mathematics from the University of Chicago in 1955.

I make this declaration under penalty of perjury.

2. I have had extensive experience since 1955 consulting for many domestic Case 2:04-cv-70366-JAC-RSW Document 93-4 Filed 07/31/2 and foreign industrial and governmental organizations in the field of Computer Science, especially in the areas of software systems, programming languages, linear programming, the history of computing, intellectual property, and intelligent transportation systems. This work also included many aspects of hardware and computer architecture. Since 1981 I have been involved in a number of legal cases as consultant and expert witness, and I have authored, among other publications, a book titled: "Software and Intellectual Property Protection." My publications, including those of the last ten years, are listed in the attached Bibliography (Appendix B). Recent cases in which I have either testified in court or through deposition are listed in Appendix C to this report.

Page 3 of

3. I have been retained by NetJumper Software L.L.C. to provide independent expert opinion concerning aspects of US Patent No. 5,890, 172 (the "172 Patent"), and specifically to address certain opinions and views taken by the Defendant in this litigation, Google, Inc., and its retained computer expert, Joseph Hardin, in its Motion For Summary Judgment Of Noninfringement And Invalidity Of the '172 Patent. I have been compensated for my study and testimony in the current litigation at my normal consulting rate, which is \$350 per hour. The total compensation will of course depend on the total amount of time I shall devote to this case.

Patent, the Google brief in support of its motion, the CyberPilot software that is alleged to invalidate Claims 1-8 of the '172 Patent, and the Declaration of Joseph Hardin supporting the Google motion. I have operated the CyberPilot software on a Windows computer equipped with Internet Explorer 2.0, a browser available in 1996, the date that Filed 07/31/2006 Case 2:04-cv-70366-JAC-RSW Document 93-4 Google alleges this software was available to the public. As explained in detail below, in my opinion, one of ordinary skill in the art (for purposes of this Declaration I believe the level of ordinary skill in the art is a person with a bachelor's degree in computer science, or equivalent experience in the computer programming field) would find that (1) the '172 Patent discloses separate embodiments of the navigational tools concept; (2) that the claims of the '172 Patent granted by the Patent Office recognize there were different inventions made by the patentees and accordingly granted claims directed to these different inventions; (3) that the prior art cited by the examiner and the prosecution history further reinforce the idea that "search window" and "browser window," at least as those terms are defined by Google, are not synonymous; (4) that by giving the term "search window" its natural construction Claims 1-8 of the '172 Patent are given scope by the patent specification and are differentiated from Claims 15-18; (5) that Google's position that it is not infringing the '172 Patent because "search window" and "browser window" describe the same area on a computer screen, and its Toolbar is therefore not "separate" from the "search window display screen" is incorrect; and (6) that the CyberPilot reference cited by Google does not anticipate Claims 1-8 of the '172 Patent because many elements present in those claims are not present in the single alleged reference.

I have carefully reviewed the '172 Patent, the file history of the '172

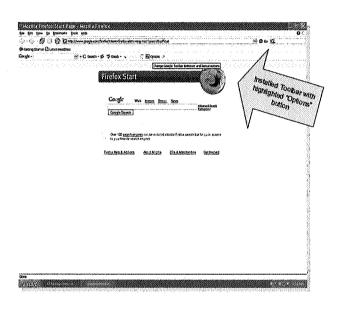
Page 4 of

4.

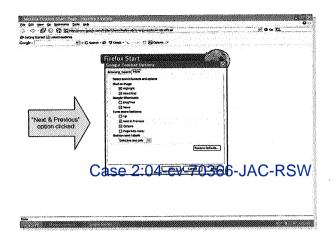
## **OPERATION OF THE GOOGLE TOOLBAR**

5. The Google Toolbar software is available from Google by, among other means, a download. Once installed, the toolbar attaches to a browser, and is capable of being moved only within the browser frame. The Toolbar has an "Options" button as Case 2:04-cv-70366-JAC-RSW Document 93-4 Filed 07/31/2006 follows:

Page 5 of

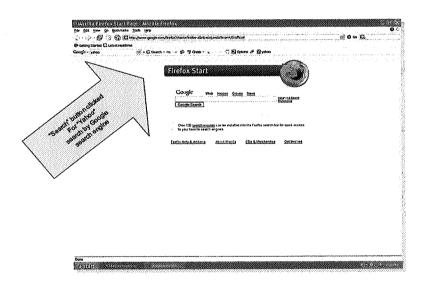


6. Once the "Options" button is clicked, the display screen shows a dialogue box which presents the user with a "Next" and "Previous" option:



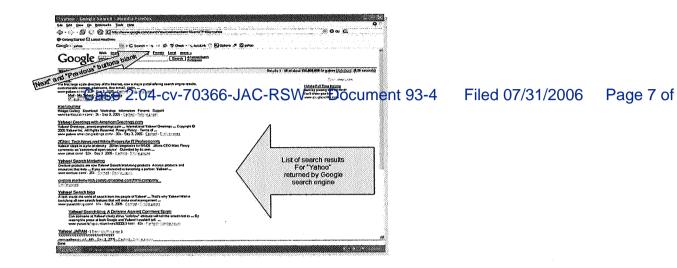
Document 93-4 Filed 07/31/2006 Page 6 of

7. When the user clicks on the "Next & Previous" option, the Toolbar's "Next" and "Previous" buttons become activated. The Toolbar contains a window for typing in searches using the Google search engine. Clicking the "Search" icon activates the search and generates a list of search results:

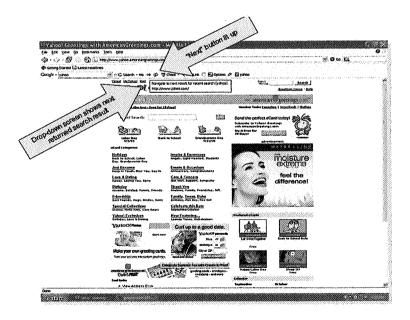


8. The Web page display screen on the user's computer shows the first screen of returned search results. Here the screenshot shows the first page of a list

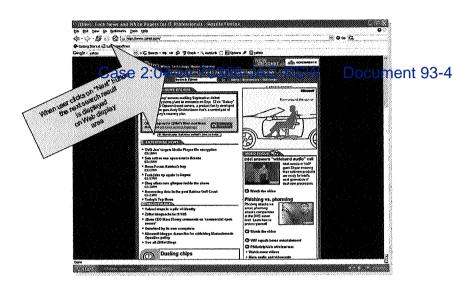
returned by Google for the search request "Yahoo" Typed into the search request window. The "Next" and "Previous" buttons on the Toolbar are not yet lit up:



9. Once the user clicks on a search result, when the user's cursor passes over the "Next" and "Previous" buttons, a drop-down menu appears showing a small URL snippet of the next search result returned by the Google search engine:

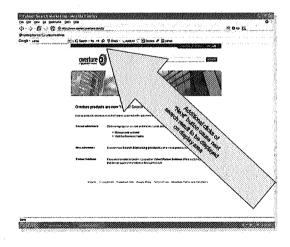


10. When the user clicks on the "Next" button, the next returned search result indicated by the drop down menu is displayed on the Web page display screen. The user does not need to back up his/her browser to return to the original search result screen:

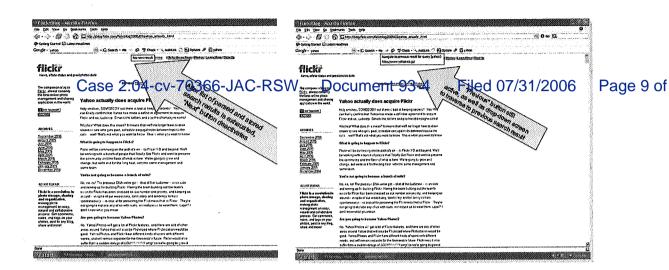


Filed 07/31/2006 Page 8 of

11. Successive clicks of the "Next" button result in the display screen displaying the next returned search result. Clicking the "Previous" button traverses the user back one search result:



12. After a series of clicks, the stored references are exhausted. The user can still traverse backwards using the "Previous" button:



OPINION RELATING TO GOOGLE'S <u>INFRINGEMENT ARGUMENT</u>

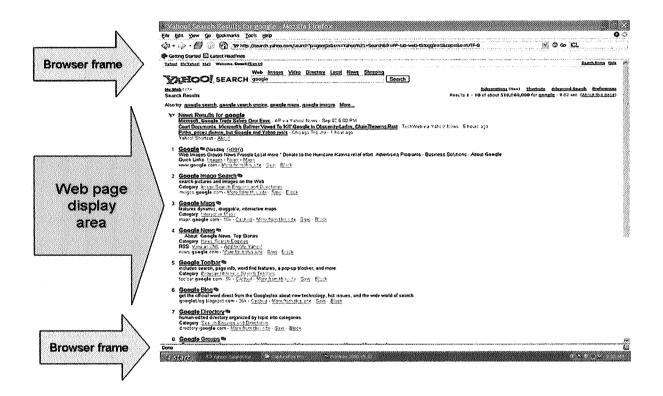
13. It is my opinion that Google is wrong in its conclusion that the term "search window," found in Claims 1-8 of the '172 Patent, should be construed to be identical to the term "browser window," (which its proposed claim construction suggests is the entire opened window of an activated browser like Microsoft's Internet Explorer), found in Claims 15-18. For reasons that follow, it is my opinion that the language of the claims, detail contained in the '172 Patent specification, the file history, and the prior art references cited by the Examiner during patent prosecution, dictate the opposite result: a "search window" of Claims 1-8 defines a different area on the computer display screen than the term "browser window". I agree that the term "browser window" defines the entire computer display area, generally bounded by a "browser frame". But in my opinion, one of ordinary skill in the art would understand that a "search window" of

Claims 1-8 does not, as Google argues, define the same area as its purported "browser window." The area bounded by "search window" is the space on a computer screen (when a browser is activated) where the application displays its results via the display services of the browser and the operating system (Windows). These areas appear generally as follows on a computer screen in which the user has activated a browser:

Case 2:04-cv-70366-JAC-RSW Document 93-4 F

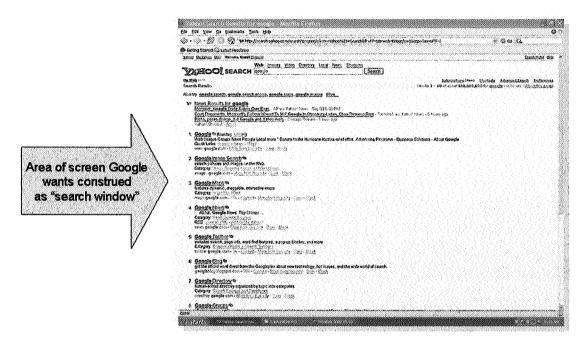
Filed 07/31/2006

Page 10 of

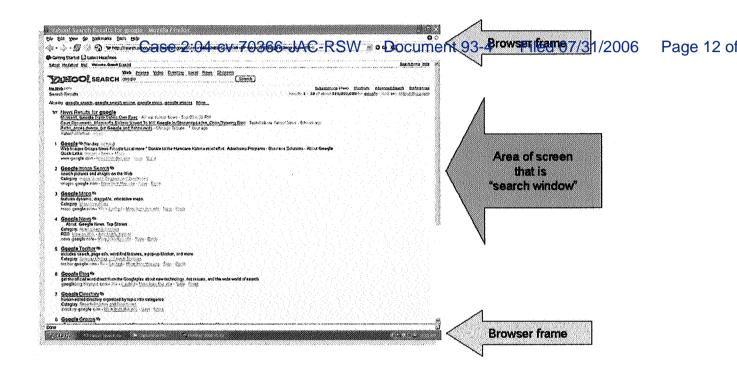


14. A comparison of the respective positions taken by the parties may be helpful. First, this is Google's position on what is meant by "search window" of Claims 1-8:

Case 2:04-cv-70366-JAC-RSW Document 93-4 Filed 07/31/2006 Page 11 of



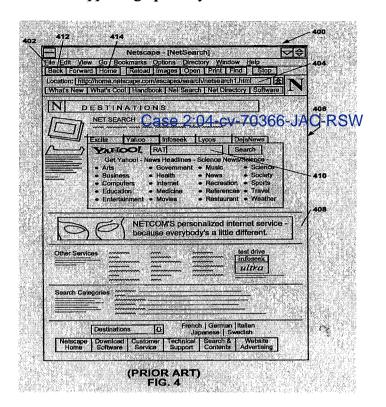
15. In contrast, this is what one of ordinary skill in the art would understand the '172 Patent shows is the "search window" of Claims 1-8:



**REASONS FOR OPINION** 

16. The Web page display area that comprises the "search window" of Claims 1-8 is the area defined by the inventors of the '172 Patent as the structure identified as 406 in Figure 4 and elsewhere, rather than the entirety of the opened computer display screen, which would include the identified browser frame present on the user's screen. Rather than using the term "browser window", the entire computer screen display area is defined by the inventors as structure 400, called "browser interface" at various portions

of the specification. In the patent the distinction between these different elements 400 and 406 appears graphically:



Document 93-4 Filed 07/31/2006 Page 13 of

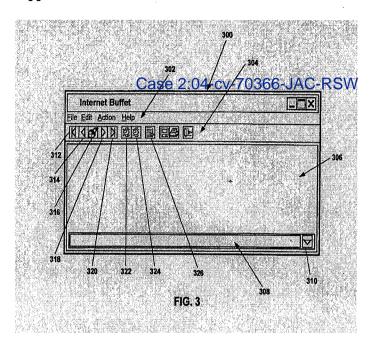
17. Since the "search window" defines a portion of an opened browser window, it is possible for the computer display screen to provide navigational tools of the type defined by the '172 Patent, specifically tools like the Next and Previous buttons on the Google toolbar, "separate" from the "search window", whether they are bundled as the Google Toolbar into a browser, or displayed as a popup-type of tool which "floats" above the browser. My examination of the '172 Patent in view of one of ordinary skill in the art, and of the file history, supports this conclusion.

18. The '172 Patent is generally directed to an improved navigation tool for a computer user working with an Internet search engine. The specification identifies a number of prior-art search engines, like Yahoo, Alta Vista, Excite, and others. (Col. 1, 11.64-66). It identifies these information indexers as storing indexes of Internet files and allowing computer users to find a list of all indexed files that meet a search criterion or Case 2:04-cv-70366-JAC-RSW Document 93-4 Filed 07/31/2006 criteria. (Col. 2, ll. 2-6). The inventors of the '172 Patent also identified that these search engines encode search results in HTML computer language as a so-called "hot-link." (Id. at II. 19-21.) The use of a search engine in browsers of 1996 presented a problem for a user if the user "drilled down" in a particular returned search result, did not find what the user needed, and wanted to return to the original search result to follow another indexed hot-link. The browsers available in 1996 did not provide navigational tools beyond the "Back" and "Forward" buttons found on browsers to this day, and which only move up or down a single level in the search tree.

Page 14 of

- 19. The '172 Patent describes a set of navigational tools that overcame that problem. The '172 Patent specifies several embodiments of those navigational aids, including as described below, an embodiment that was embedded in Web browser software, as well as an embodiment in which the tools are contained in a popup-type of software application. The granted claims of the '172 Patent pertain to these two general embodiments.
- 20. The first general embodiment described in the '172 Patent is for a "floating" or pop-up type window, which the inventors refer to as a "jumper window."

(Col. 3, 1. 18). This embodiment is shown in Figure 3, where it is illustrated in comparison to an opened browser window in Figures 5A, 5B, and 5C. This figure appears as follows:



Document 93-4 Filed 07/31/2006 Page 15 of

21. The description of the "jumper window" in the specification provides the general concept of navigational controls. Among other tools in the "jumper window," structure 318 describes a "next entry" button, and structure 314 a "previous entry" button. (Col.6, Il. 47-54, Col. 7, Il. 6-9). The patent specification introduces the concept of automation within the tool set: "responsive to an activation by the user, a computer is directed to determine which of the stored site identifiers is currently selected and automatically selects an other. The other includes the first…the next… or the last on the list." (Col. 3, Il. 18-22). The "floating" embodiment includes its own toolbar, identified as structure 304.

22. The '172 Patent specification then discloses embodiments which exactly describe the structure of the Google Toolbar (Col. 7, ll. 22-26):

In alternate embodiments the jumper window may take any of several forms. The user interface may include a popup or persistent window, a toolbar, a menu modification of the browser window, a toolbar modification of the browser window, or the use of accelerator keys on the keyboard.

Document 93-4

Filed 07/31/2006

Page 16 of

23. Further in the specification, the inventors disclose "better" integration of the jumper's functions and the browser's functions... In one embodiment, the jumper functions are built directly into the browser...All of these embodiments provide a more integrated jumper/browser environment for the user." (Col. 12, Il. 27-34). I also note that the inventors cautioned those reading the patent that the "figures and the text are to be

viewed in the illustrative sense only, and not limit the present invention." (Col. 13, Il. 21-

Case 2:04-cv-70366-JAC-RSW

23.)

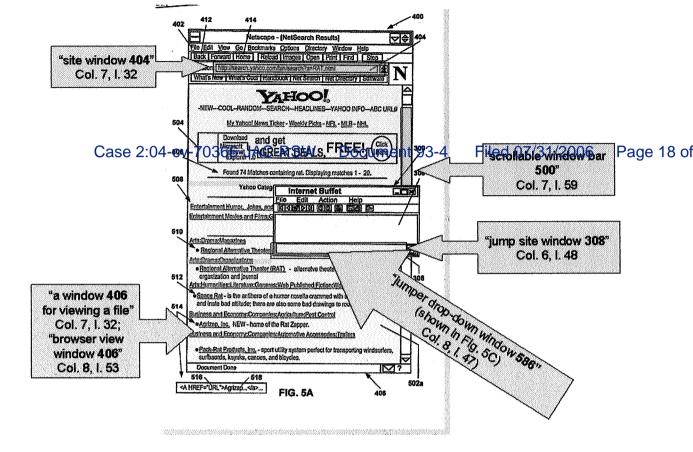
24. A person of ordinary skill in the art would understand that the underlying technology for the graphical display of complex user interfaces almost always provides for a series of distinct data elements organized into a special data structure for the Graphical Display Manager of the operating system to process. Each of these data elements would "describe" a portion of the visible graphical interface for the user, such as a toolbar, a window frame, etc. One reason for this organization is to allow efficient replacement of a data element by another under control of the user. Since the search window is clearly intended to be replaced frequently when the user selects (or directs the search engine to select) the <u>next</u>, etc., I would expect that the "search window" under discussion here is a separate data element in this organization

from the standard browser window within which it is displayed. It is my opinion that one of ordinary skill in the art would have understood from the above description that the navigational tools of the '172 Patent invention were **not** limited to a separate "floating" window, but were instead contemplated to be provided for the computer user directly within the browser frame by a variety of means known in the art in 1996.

Case 2:04-cv-70366-JAC-RSW Document 93-4 Filed 07/31/2006

Page 17 of

25. I have examined the '172 Patent to determine if the inventors said anything inconsistent with the above opinion, and found they did not. An examination of the specification of the '172 Patent reveals that, contrary to Google's suggestions, the inventors did not intermix the terms "browser window" and "search window." The inventors pointed out to the Examiner that a typical browser window of 1996 contains a series of the particular segments and components many of which could be characterized as "windows" of one type or another. Referring to Figure 4, the inventors referred to the "browser interface 400" when referring to the structure that Google now calls the "browser window." (Col. 7, 1. 30.) In the same paragraph they identify a "site window 404" and a "window 406 for viewing a file." (Id.). The display area 406 is also referred to in the specification as a "view window" or "browser view window." (Col. 8, 1. 45). These terms would have been understood by those of ordinary skill in the art as describing different areas of the browser user interface, and specifically the area where the browser would display the returned HTML file, exactly as shown by 406 in Figure **4.** I show these different "windows" graphically:



26. I take particular note that in its discussion Google is somewhat loose in its treatment of the patent specification and its own cited references. In the argument made on p. 24 of Google's brief, supported by footnote 10, Google asserts that "search window is simply the browser window (400) shown in the patent." But even in Google's own citation in footnote 10 to the prosecution history, the patentee's language cited is "browser view window," not any other term and particularly not "browser window." It is clear that the phrase "browser view window" used in the specification refers not to the interface, identified particularly as structure 400, but to item 406, the Web page display screen, which is the area where the browser displays an HTML file. On page 25 of Google's brief, Google says the area in question is a "unified browser window (400),"